DOCUMENT RESUME

ED 032 570 CG 004 381

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Evaluation of Temple University's Drug Abuse Prevention Program.

Temple Univ., Philadelphia, Pa.
Spons Agency-Department of Justice, Washington, D.C.
Pub Date Sep 68
Note-71p.
EDRS Price MF-$0.50 HC-$3.65
Descriptors-Changing Attitudes, College Programs, College Role, *Drug Abuse, *Evaluation, *Health Education, *Prevention, *Program Descriptions, Program Development, Programs, Reports

Temple University's concern for the problem of drug abuse culminated in a Retreat on the Hazards of Drug Abuse. Participants were undergraduates, graduates, and staff. An evaluation design, involving pre- and post-testing, had previously been designed to test for information gains and attitude changes. A followup was designed to focus on participants' activities related to drug education. A control group was established to determine conference effects on participants. Based on evaluation results, the following were concluded: (1) information gains were significant as a result of the conference, (2) attitudes of undergraduates were altered favorably, particularly on the use of marijuana, (3) participants were stimulated to acquire and disseminate additional information on drug education, and (4) the conference format was considered appropriate by the participants. The success of the program has led to establishment of the Drug Education Activities Project to provide drug education, referral, and research services. Samples of pre- and post-tests, plus data tables are appended. (Author/CJ)

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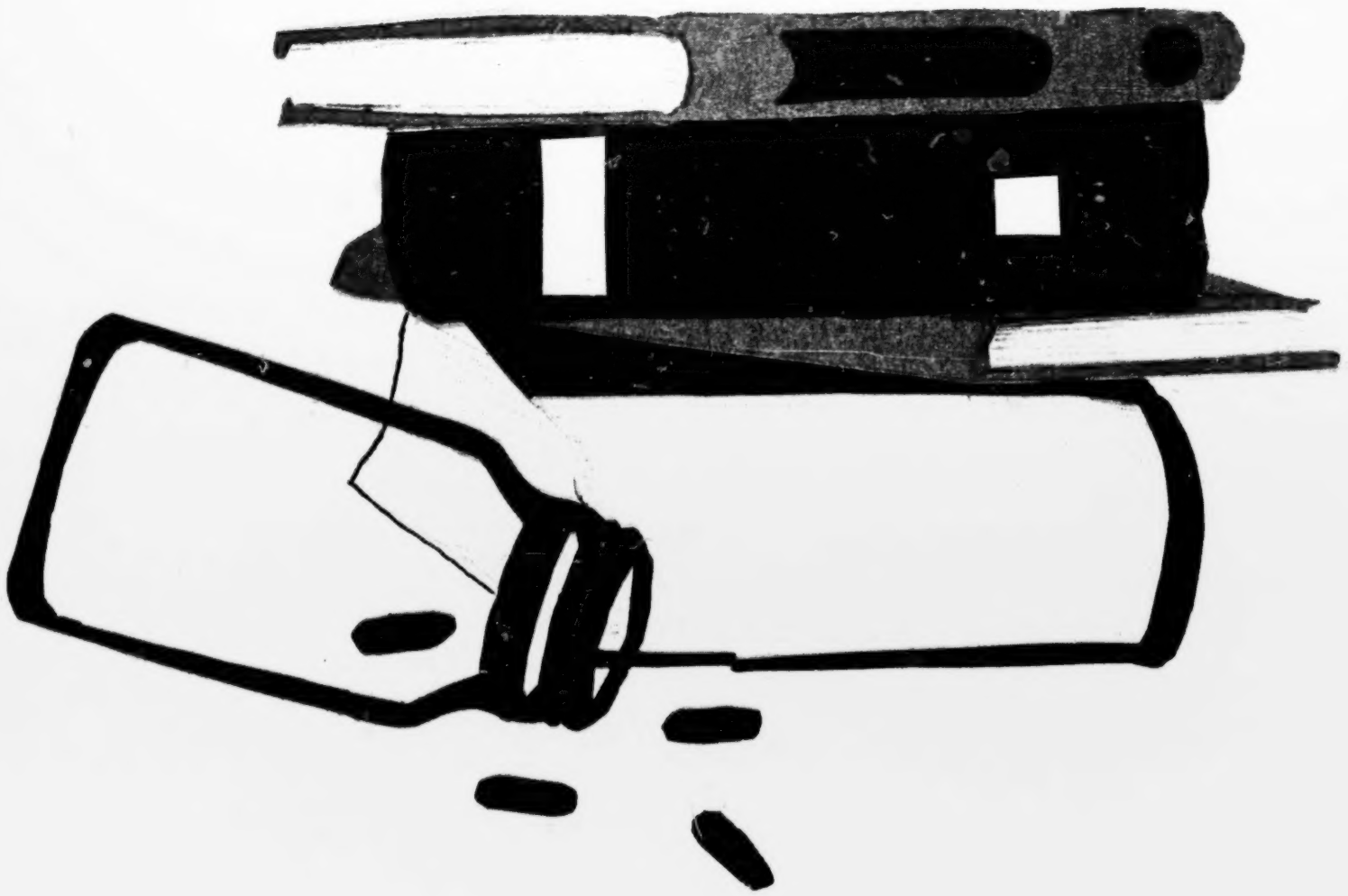
EVALUATION OF TEMPLE UNIVERSITY'S DRUG ABUSE PREVENTION PROGRAM



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EVALUATION OF TEMPLE UNIVERSITY'S DRUG ABUSE PREVENTION PROGRAM

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A report of Temple University's Drug Education Activities Project in cooperation with the Department of Psychology prepared under contract J-68-50, U.S. Department of Justice

September 1968

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ABSTRACT

Temple University's concern for the drug abuse problem culminated in the Retreat, on the Hazards of Drug Abuse. Early in the planning stages of the Retreat, a decision was made to evaluate the program in depth, and federal support from the Justice Department made this possible. The evaluation design involved pre- and post-testing for information gains and attitude changes. Also included in the design was a follow-up six weeks after the conference that focused on the participants' activities that related to drug education. A control group was also established in order to determine the impact of the conference on the participants. The primary instrument that was utilized was the DRUG ABUSE Scale. Before use, a thorough item analysis was conducted and a reliability of .83 was established.

In the area of knowledge gained, an analysis of variance which compared the participants to the controls on the pre- and post-testing revealed that the gain of twelve points for the participants was statistically significant at the .01 level. The participants' gain of twelve points was more than double their test scores and the control group only gained one-quarter of a point. When the knowledge scales for the undergraduates, graduates, and staff were subjected to an analysis of variance, no significant differences in pre- and post-gains were found.

The attitude data collected as part of the conference evaluation revealed that the participants and controls generally had conservative attitudes with regard to using drugs. Most of the statistically significant shifts were for the undergraduate students and these included:

1) a shift from agreeing with the legalization of marijuana to disagreeing with legalization;

2) a shift from having no opinion about marijuana to disagreeing with its usefulness in achieving "greater insight"; and,

3) a shift from perceiving the drug abuser as not being alienated to seeing him as somewhat alienated.

Another important attitude that was discovered was that the University should not be involved in penalties for drug abusers beyond the penalties of the law. Although the participants did not see a punitive role, they strongly recommended that the University be involved in several approaches to drug education including: individual counseling; lectures in relevant courses; additional conferences; and resource centers.

Within the first forty-eight hours after the conference, the following occurred:

1) 28 additional booklets, Drugs on the College Campus were distributed;

2) 19 pamphlets on LSD were given out;

3) 35 copies of the World Health Organization bulletin on dependence were requested; and,

4) 25 copies of Psychedelics and the College Student by the Princeton Press were distributed.

In addition to the above were 11 requests for the film "The Mindbenders" and over twenty requests for the Encounter film, "The Seekers". There were so many requests to meet with the Encounter people that plans were made to bring them down to the campus for a series of six seminars. Much of this literature that was requested by individuals other than those who were in attendance. The conference literature was also seen all over the campus and many discussions were held in classes. Finally, several fraternity and sorority meetings were devoted to the topic within forty-eight hours and several of these groups invited us to come to their organizations. In general, the immediate response was indicative of the significant impact of this conference.

The behavior follow-up of the participants and controls six weeks after the conference revealed that the participants were involved in more informal activities such as general reading and small group discussions than the controls. There were no significant differences in terms of formal presentations in classrooms or before groups. The behavior follow-up also revealed that the great majority of the participants had read most of the material provided at the conference. Another significant finding at this time was that the participants in their contacts with drug abusers emphasized the hazards involved with drugs and also discussed personal problems with the abusers.

Also included in the evaluation were the participants' ratings of the conference. In general, they highly recommended the inclusion of former drug abusers; and, in fact, wanted more time with this type of speaker. Participants also responded favorably to the opportunity given to them during the small group discussion sessions. In that the participants were grouped according to pretest scores, it was not surprising to find that they also felt the level of the conference was just about right. Finally, the participants were highly complimentary with regard to the organization and setting for the Retreat.

Based on the results of the evaluation, the following conclusions were developed:

1) The conference was particularly effective in increasing the participants' level of information regarding drugs;

2) the conference had a favorable impact on the attitudes of undergraduate students, particularly with regard to marijuana;

3) the conference stimulated the participants to further acquire and disseminate information related to drug education; and,

4) the format of the conference was very appropriate and further endeavors of this nature will rely heavily on this approach.

The success of this year's program has led to the establishment of the Drug Education Activities Project (See Appendix F) with full-time staff providing drug education, referral, and research services.

EVALUATION
of
TEMPLE UNIVERSITY'S DRUG ABUSE PREVENTION PROGRAM

INTRODUCTION

Temple University's enlightened concern for the apparent increase of drug abuse on college campuses resulted in the formation of The Special Committee on Drug and Related Problems in 1965. The appointed members of this committee included representatives from the faculty, administration and student body, with some emphasis on representation from the disciplines of psychiatry, psychology, pharmacology, and law. It was the role of this committee to review the literature related to the topic of drug abuse, with particular attention to how it affects the college student.

The Sub-committee on Educational Programs has since been established to disseminate information to the University at large. The initial phase of this educational endeavor took the form of "A Retreat, on the Hazards of Drug Abuse" which was held on April 21, 1968 (See Appendix A for complete outline of the RETREAT). The purposes of the RETREAT included: (1) informing students, faculty, and administrators about the hazards of drug abuse; and, (2) encouraging them to disseminate relevant information to the entire University population. The format of the RETREAT deviated from the typical presentation of papers, and instead included small group discussion periods.

Based on Nowlis' conclusion that the "evaluation of education programs is the exception rather than the rule," the decision was made to conduct an evaluation of the RETREAT. Furthermore, in order to justify the continued involvement in this type of endeavor an evaluative study was considered essential. The RETREAT was not intended to be a one-time "stop gap" measure, but rather to promote a continuing educational program on the hazards of drug abuse geared to the needs of the different segments of the University population.

GENERAL METHOD

The general purpose of this evaluation was to determine the impact of this approach to drug education on the various types of participants, including undergraduate students, graduate students and staff members. It was assumed that the RETREAT would have differential effects, but the type of participant who was most greatly affected was not predicted in advance.

The following variables were measured:

1. Changes in knowledge regarding drugs (amphetamines, depressants, marijuana, and other hallucinogens).
2. Changes in attitudes of participants regarding drug abusers, hazards of drug abuse, and approaches to the drug abuse problem.
3. The subsequent dissemination of information acquired at the conference.

Sample

The one hundred subjects involved in the evaluation represented a variety of backgrounds and levels of responsibility within the University. The following sub-groups were utilized in the final statistical analysis:

A. Undergraduate students

B. Graduate students

C. Staff (full-time faculty and administration)

Treatment

The primary treatment involved in this study was the exposure to a one-day RETREAT and the establishment of a resource center. It was recognized that other variables not connected with the study might have had an impact on the participants prior to the study. These variables could have included prior experience with drugs, association with persons affected by drugs, or the exposure to information via the mass media. However, an attempt was made in the instrumentation to assess the extent of the impact of the RETREAT in relationship to other experiences.

CONTROLS

A control group (N=50) was established in order to more accurately measure the impact of the RETREAT on the participants. The control group was composed of undergraduate and graduate students, and staff members at Temple University who indicated an interest in attending the conference; but, due to the limitation imposed by the format, were unable to be accommodated. This group was of sufficient size to permit comparable statistical analysis.

INSTRUMENTS

The assessment procedures followed in this project were developed exclusively for evaluative purposes. The instruments were entitled: DRUG ABUSE, (See Appendix B), Conference Evaluation Form, (See Appendix C), and Drug Education Activities form, (See Appendix D). They were co-authored by Dr. John D. Swisher and Mr. Richard E. Horman.

DRUG ABUSE SCALE (See appendix B)

The instrument used in the study was entitled "Drug Attitudes and Backgrounds of University Students and Educators" or more commonly "DRUG ABUSE Scale". This test was administered before and after the program to the participants as well as to the controls. The Conference Evaluation Form was administered to the participants at the conclusion of the program (See Appendix C).

The questions for the final DRUG ABUSE Scale were taken from a pool of eighty-six questions that were administered to one hundred and fifty undergraduate and graduate students at Temple University (See Appendix E). Their responses to the objective questions were then subjected to a Comparative Group Item Analysis.

Item Analysis

Through the use of an item analysis technique, the following information was obtained: level of difficulty of each item; the quality of each distractor; and,

the validity of each item to discriminate between persons receiving high and low scores.

Based on this information, the items were rewritten and arranged from least to the most difficult. It should be noted that true and false questions did not meet our discrimination standards; and consequently, they were either discarded or rewritten as multiple-choice type questions.

Reliability

The reliability of the objective part of the questionnaire was determined by calculating the correlation of the odd-numbered questions with the even-numbered ones. The Pearson Product Moment correlation formula was used, and yielded an r=.7132. Then, by using the Spearman correction formula, the split-half reliability for the objective scale was calculated to be an r=.8325. This was considered to be an acceptable level of reliability for the purposes of this study.

Attitude Scale

These questions were randomly scattered among the objective questions on the assumption that response sets (e.g., all agree or disagree responses) would be less likely to develop. The questions covered such topics as the role of the University in drug education, legal problems, personality characteristics of drug abusers, and attitudes about the effects of drugs. The main purpose of this scale was to determine if changes in attitudes occurred, and if so, if the changes could be attributed to the exposure at the RETREAT.

DRUG EDUCATION ACTIVITIES Scale (See appendix D)

This questionnaire was mailed during the early part of June to the participants and control group to find out whether the RETREAT program motivated the

participants to continue to acquire and disseminate information. The follow-up was particularly important in that it focused on the behavior of the participants which goes beyond the immediate effects of changes in attitudes and knowledge. The final analysis with regard to the follow-up was based on approximately 85% return for both the participants and controls.

GAIN IN KNOWLEDGE ABOUT DRUGS

In that one of the major purposes of the conference was to educate the participants, it was very appropriate to measure any gain in knowledge. Tables 1 and 2 contain the data relevant to the analysis of variance for the information changes on the DRUG ABUSE Scale. Table 1 shows that the participant group gained more than twelve points in their average level of knowledge while the control group gained only one-fourth of a point. This gain was statistically significant at the .01 level which would indicate that attendance at the conference had a very significant impact on the participants' general knowledge concerning drugs. Apparently, the control group started out better than five points ahead of the participants and finished almost six and one-half points behind. Further analysis on these differences indicated that they were significant. The pre-test difference between the control and the participant group could be explained by assuming that the control group was aware of their relatively high level of information concerning drugs and therefore would be less interested in attending the conference. The means by which the control group was selected would make such a hypothesis valid, but by no means the only explanation.

Table 1
Differences in Knowledge
Participants vs. Controls

	Pre-test Means	Post-test Means	ANOV F-ratio	Level of Significance
Participants	11.40	23.48	16.448	.01
Controls	16.76	17.02		
Mean Difference	5.31	6.46		
z	62.47	46.01		
Level of Significance	.01	.01		

Table 2
Differences in Knowledge
Participants vs. Controls & Undergraduates vs. Graduates vs. Staff

		Pre-test Means	Post-test Means	3-way ANOV F-ratio	Level of Significance
Participants	Undergraduate	10.72	24.08	.488	N.S.
	Graduduate	12.95	22.55		
	Staff	12.07	22.21		
Control	Undergraduate	16.26	16.45		
	Graduate	I.D.*	I.D.*		
	Staff	I.D.*	I.D.*		

*I.D. means insufficient data.

Table 2 represents the breakdown of the participant and control groups into three sub-groups including undergraduate students, graduate students, and staff; and then, presents their pre- and post-test scores. Although the analysis of variance did not yield any significance when broken down in this fashion, the greatest increase among the participants was experienced by the undergraduate students (13 points) with the increases for the graduate students and staff being approximately 10 for each group.

The number of graduate students (approximately 5) and staff (approximately 3) in the control group was too small to make any generalization about their scores, but this did not effect the analysis of variance.

ATTITUDE CHANGES

In this section, each attitude item from the DRUG ABUSE Scale will be discussed separately. The distribution of responses for each item will be described and any statistically significant shifts in attitudes will also be discussed. The participants' attitudes were compared with the control group's attitudes, pre and post, and no significant differences were found. Therefore, this part of the report only deals with the shifts in attitudes for the participants.

In table 3, the majority of the participants felt that drug abuse is a psychological rather than a legal problem. The Chi-squares revealed no significant differences for the undergraduate students, graduate students, or staff in terms of their attitude shifts from pre to post, on this item.

These results may be a function of the type of person who attended the conference. In many cases, the participants were in some way connected with what may be called psychologically-oriented work or study within the university. Consequently, one would expect these subjects to perceive problems as being psychological in nature.

Another interpretation could be that the participants have a negative attitude toward the legal approach to drug abuse as it has been handled within the city and the Commonwealth.

The participants, in response to what the most appropriate penalty for apprehended drug abusers should be, favored a graduated penalty system. (See table 4.) Secondly, the participants recommended a graduated system that did not involve the University. The Chi-squares for pre and post responses did not reveal any significant shifts as a result of the conference.

The fact that the participants did not want the University to be involved in the discipline of drug abusers reflects to some extent the diminishing power of the <u>in loco parentis</u> authority traditionally granted to the University.

Table 3 -- Attitude Item

10. Drug abuse is a legal, not a psychological problem:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	2	3.7	5	7.8	5	7.8	26	40.6	26	40.6	3.8734 (df=4)	N.S.
	Post	4	7.3	7	12.7	1	18.0	21	38.2	22	40.0		
Graduate	Pre	0	0	3	15.0	0	0	11	55.0	6	30.0	3.1033 (df=4)	N.S.
	Post	1	5.6	2	11.1	1	5.6	11	61.1	3	16.7		
Staff	Pre	0	0	1	7.1	0	0	8	57.1	5	35.7	3.7247 (df=4)	N.S.
	Post	1	3.7	1	3.7	4	14.8	10	37.0	11	40.7		

Table 4 -- Attitude Item

13. Which is the most appropriate for apprehended college drug abusers:

1. 1st offense a court warning, 2nd offense a court imposed fine, 3rd offense a court imposed sentence
2. automatic dismissal from the University
3. the University should not impose any penalty beyond the law's

Rank		1.		2.		3.		4. (1. & 2.)		5. (1. & 3.)		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	9	14.8	3	4.9	21	34.4	5	8.2	23	37.7	1.1975 (df=4)	N.S.
	Post	9	17.0	1	1.9	18	34.4	3	5.7	22	41.5		
Graduate	Pre	3	15.0	2	10.0	5	25.0	3	15.0	7	35.0	2.7375 (df=1)	N.S*(.10)
	Post	3	17.6	2	11.8	8	47.1	3	17.6	1	5.9		
Staff	Pre	3	23.1	0	0	6	46.2	1	7.7	3	23.1	4.9795 (df=1)	.05*
	Post	2	10.5	1	5.3	4	21.1	0	0	12	63.2		

*Based on collapsed table.

The data in table 5 revealed a fairly conservative attitude toward the legalization of LSD, in that the majority of the participants felt that LSD should not be legalized. These results also reflect the general decline in the use of LSD as recorded by Yolles.[1] The Chi-squares for these data did not reveal any significant shifts based on pre and post results.

The data in table 6 revealed that the undergraduate students' attitudes toward legalization of marijuana shifted from being in favor of legalization to being against legalization. This shift was significant at the .001 level. The graduate students and staff who also participated in the conference did not change their attitudes but they tended to be against the legalization of marijuana from the beginning. Assuming that attitudes influence behavior, this is one of the most significant findings in this study and an important contribution of the Retreat. If the recent American Medical Association reports are valid, then this change in attitude for some of the undergraduate students was indeed appropriate.

It is also recognized that the undergraduate students could be responding to this question in two different ways: 1) whether or not marijuana should be legalized; and, 2) whether or not it is more dangerous than alcohol.

The data in table 7 revealed a significant shift from wanting research done on specific types of drugs to wanting more research on all types of drugs. The shift was significant for undergraduate and graduate students at the .05 level. Staff members, however, tended to shift in the opposite direction, which was not significant.

The data in table 8 revealed that undergraduate students shifted from having no opinion about marijuana assisting self-understanding to generally disagreeing with the utility of marijuana. This shift was significant for them

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1. Stanley Yolles, in a speech given before the Sub-committee on Juvenile Deliquency, of the Committee on the Judiciary, U.S. Senate, March 6, 1968.

Table 5 -- Attitude Item

15. Since LSD is no more dangerous than alcohol, it should be legalized:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	2	3.1	2	3.1	8	12.5	21	32.8	31	48.4	1.1486 (df=4)	N.S.
	Post	1	1.8	3	5.3	8	14.0	15	26.3	30	52.6		
Graduate	Pre	1	5.0	0	0	2	10.0	5	25.0	12	60.0	1.6889 (df=1)	N.S*
	Post	0	0	2	11.1	2	11.1	7	38.9	7	38.9		
Staff	Pre	0	0	0	0	1	7.7	5	38.5	7	53.8	3039 (df=1)	N.S*
	Post	1	3.7	0	0	1	3.7	8	29.6	17	63.0		

*Based on collapsed table.

Table 6 -- Attitude Item

18. Marijuana is no more dangerous than alcohol, therefore it should be legalized:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	10	15.6	20	31.3	7	10.9	24	37.5	3	4.7	20.8137 (df=4)	.001
	Post	4	7.1	6	10.7	8	14.3	20	35.7	18	32.1		
Graduate	Pre	3	15.0	6	30.0	1	5.0	6	30.0	4	20.0	.8097 (df=1)	N.S*
	Post	2	11.8	1	5.9	3	17.6	8	47.1	3	17.6		
Staff	Pre	2	14.3	3	21.4	0	0	6	42.9	3	21.4	7.6687 (df=4)	N.S.
	Post	2	8.3	1	4.2	5	20.8	6	25.0	10	41.7		

*Based on collapsed table.

Table 7 -- Attitude Item

21. More research needs to be done regarding the effects of which of the following drugs before they are made generally available to the public:

Rank		1. marijuana		2. LSD		3. stimulants and depressants		4. 1 and 2		5. 1,2, & 3		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	5	8.2	9	14.8	6	9.8	14	23.0	27	44.3	7.1583 (df=2)	.05*
	Post	2	3.8	3	5.8	1	1.9	16	30.8	30	57.7		
Graduate	Pre	1	4.8	3	14.3	3	14.3	4	19.0	10	47.6	.0003· (df=1)	N.S.*
	Post	0	0	1	5.3	1	5.3	8	42.1	9	47.4		
Staff	Pre	0	0	0	0	1	7.1	0	0	13	92.9	4.1061 (df=4)	N.S.
	Post	2	10.0	0	0	1	5.0	3	15.0	14	70.0		

* based on collasped table

Table 8 -- Attitude Item

23. Marijuana can help a person achieve better self understanding:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	3	4.7	5	7.8	20	31.3	22	34.4	14	21.9	10.0573 (df=4)	.05
	Post	3	5.3	2	3.5	8	14.0	18	31.6	26	45.6		
Graduate	Pre	0	0	1	5.3	6	31.6	7	36.8	5	26.3	.0709 (df=1)	N.S.*
	Post	0	0	1	5.9	6	35.3	3	17.6	7	41.2		
Staff	Pre	0	0	1	7.1	4	28.6	5	35.7	4	28.6	.6629 (df=1)	N.S.*
	Post	1	3.4	1	3.4	7	24.1	8	27.6	12	41.4		

* Based on collapsed table.

at the .05 level and was consistent with the shift regarding the legalization of marijuana. Graduate students and staff members came to the conference generally feeling that marijuana cannot assist with self-understanding and this is consistent with their desire for more research to be done in these areas.

The data in table 9, with regard to the utility of LSD, revealed that undergraduate and graduate students shifted from having no opinion to both sides of the argument. The Chi-squares for this were not significant; however, a .10 level of significance was achieved in a collapsed table which merely lends support to the above statement.

In tables 10 and 11, the conference participants generally agreed that stimulants can help a person get a job done and depressants can help a person through anxiety-producing experiences. However, it was concluded that the items were poorly written in that they failed to measure attitudes toward the abuse of stimulants and depressants rather than what are considered medical or socially accepted uses.

The data in table 13 revealed that the participants generally perceived drug abusers as being alienated from society. Undergraduate students experienced a significant shift from disagreeing to agreeing with this idea at the .05 level. These data represent one form of indirect support for the alienation hypothesis about drug abusers' motives. Further research is indicated by these data, but better definitions, instruments, and more direct procedures are absolutely necessary.

The data in table 14 concerning the passive personality of drug abusers represented the most diverse distribution of all the data collected. There was a slight shift for the undergraduate students from having no opinion to agreeing, but none of the statistical analyses were significant. This item, that drug abusers are generally passive, was originally stimulated by other research results, but these data would not lend support to this hypothesis.

Table 9 -- Attitude Item

25. LSD can help a person achieve a better self understanding:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	2	3.2	3	4.8	27	42.9	14	22.2	17	27.0	6.3737 (df=4)	N.S. .10*
	Post	4	7.1	4	7.1	13	23.2	12	21.4	23	41.1		
Graduate	Pre	0	0	2	10.5	8	42.1	0	0	9	47.4	.1393 (df=1)	N.S.*
	Post	0	0	2	11.8	4	23.5	4	23.5	7	41.2		
Staff	Pre	0	0	1	7.1	4	28.6	3	21.4	6	42.9	.0662 (df=1)	N.S.*
	Post	0	0	1	5.3	5	26.3	4	21.1	9	47.4		

* based on collapsed table

Table 10-- Attitude Item

29. Pep pills can help a person stay alert in order to get a job done:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		x^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	4	6.3	29	46.0	13	20.6	16	25.4	1	1.6	4.6006 (df=2)	N.S.*
	Post	4	7.5	32	60.4	4	7.5	7	13.2	6	11.3		
Graduate	Pre	2	10.0	10	50.0	3	15.0	4	20.0	1	5.0	.1810 (df=1)	N.S.*
	Post	0	0	12	66.7	1	5.6	3	16.7	2	11.1		
Staff	Pre	0	0	7	53.8	4	30.8	2	15.4	0	0	.0089 (df=1)	N.S.*
	Post	3	16.7	7	38.9	4	22.2	2	11.1	2	11.1		

* based on collapsed table

Table II -- Attitude Item

32. Depressants can help a person through some anxiety producing experiences:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	6	9.5	30	47.6	14	22.2	11	17.5	2	3.2	5.5930 (df=4)	N.S.
	Post	5	8.8	35	61.4	5	8.8	8	14.0	4	7.0		
Graduate	Pre	1	5.0	10	50.0	7	35.0	1	5.0	1	5.0	5.2899 (df=1)	.05*
	Post	1	5.6	15	83.3	1	5.6	1	5.6	0	0		
Staff	Pre	1	7.7	10	76.9	1	7.7	1	7.7	0	0	1.6909 (df=4)	N.S.
	Post	3	10.7	18	64.3	5	17.9	1	3.6	1	3.6		

*Based on collapsed table.

Table 12 -- Attitude Item

39. Drug abusers are generally alienated from society:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	6	9.4	29	45.3	10	15.6	14	21.9	5	7.8	9.7325 (df=4)	.05
	Post	13	22.8	31	54.4	7	12.3	5	8.8	1	1.8		
Graduate	Pre	2	10.0	7	35.0	2	10.0	9	45.0	0	0	2.4514 (df=1)	N.S.*
	Post	1	5.9	11	64.7	2	11.8	2	11.8	1	5.9		
Staff	Pre	2	14.3	8	57.1	1	7.1	3	21.4	0	0	4.4846 (df=4)	N.S.
	Post	8	27.6	12	41.4	6	20.7	2	6.9	1	3.4		

*Based on collapsed table.

Table 13-- Attitude Item

42. Drug abusers are generally passive type people:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	3	4.7	17	26.6	17	26.6	22	34.4	5	7.8	2.7323 (df=4)	N.S.
	Post	4	7.0	22	38.6	11	19.3	16	28.1	4	7.0		
Graduate	Pre	0	0	6	31.6	4	21.1	9	47.4	0	0	.1393 (df=1)	N.S.*
	Post	0	0	7	41.2	3	17.6	6	35.3	1	5.9		
Staff	Pre	1	7.7	3	23.1	6	46.2	2	15.4	1	7.7	1.1993 (df=4)	N.S.
	Post	2	7.4	9	33.3	8	29.6	6	22.2	2	7.4		

*Based on collapsed table.

The participants at the conference showed general agreement in table with the idea that drug users often have emotional problems. There was a very slight shift among the participants from disagreeing and no opinion to agreeing with the idea, but the shift was not statistically significant. It is important to note that the participants at this conference generally felt that drug abusers had more emotional problems than non-users.

When asked about academic difficulties of drug users, the participants again represented the total range of possible attitudes (See table 15). The Chi-squares on the shifts in attitudes did not yield any significance. It can be noted, however, that the staff members tended more often than graduate students and undergraduate students to feel that drug abusers had more academic difficulties. Yolles[2] reported that experimenters or occasional users of drugs tended to have higher academic averages, but his results did not deal with drug abusers in the extreme sense as defined in this study.

In table 16, the undergraduate students attending this conference shifted from having no opinion about a drug user's ability to make friends to perceiving the drug user as having difficulty in this area. This shift was significant at the .001 level. Graduate students and staff members generally felt that drug abusers had difficulty making friends from the very beginning. The shift for undergraduate students can be accounted for in part by the Encounter theme stated again and again at the conference, "drug users are afraid of people."

The data in tables 17 and 18 revealed that the participants generally felt that college students should be made more aware of the dangers of drug abuse and that the participants also advocated a multiple approach to

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2. Yolles, ibid.

43. The person who uses drugs has an emotional problem:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	12	18.8	24	37.5	7	10.9	17	26.6	4	6.3	.2741 (df=4)	N.S.
	Post	15	26.3	25	43.9	9	15.8	4	7.0	4	7.0		
Graduate	Pre	3	15.8	9	47.4	4	21.1	3	15.8	0	0	.0093 (df=1)	N.S.*
	Post	2	11.8	9	52.9	5	29.4	1	5.9	0	0		
Staff	Pre	3	21.4	5	35.7	3	21.4	3	21.4	0	0	.0085 (df=1)	N.S.*
	Post	10	34.5	7	24.1	6	20.7	4	13.8	2	6.9		

*Based on collapsed table.

Table15 -- Attitude Item

45. Drug abusers have more academic difficulties than other college students:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	2	3.2	13	20.6	14	22.2	29	46.0	5	7.9	6.9983 (df=4)	N.S.
	Post	5	9.3	15	27.8	15	27.8	13	24.1	6	11.1		
Graduate	Pre	1	5.3	5	26.3	5	26.3	7	36.8	1	5.3	.1751 (df=1)	N.S.*
	Post	1	5.9	6	35.3	4	23.5	5	29.4	1	5.9		
Staff	Pre	2	14.3	4	28.6	7	50.0	1	7.1	0	0	1.0537 (df=1)	N.S.*
	Post	1	5.6	10	55.6	6	33.3	1	5.6	0	0		

*Based on collapsed table.

47. Drug abusers generally do make friends with others easily:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	4	6.5	10	16.1	27	43.5	18	29.0	3	4.8	17.2049 (df=3)	.001*
	Post	4	7.0	8	14.0	9	15.8	21	36.8	15	26.3		
Graduate	Pre	0	0	3	16.7	7	38.9	8	44.4	0	0	2.4401 (df=1)	N.S.*
	Post	0	0	0	0	5	29.4	8	47.1	4	23.5		
Staff	Pre	0	0	0	0	5	35.7	7	50.0	2	14.3	.6041 (df=1)	N.S.*
	Post	0	0	4	13.8	10	34.5	9	31.0	6	20.7		

* based on collapsed table

Table 17 -- Attitude Item

50. College students should be made aware of the dangers of drug abuse:

Rank		Strongly Agree		Agree		No Opinion		Disagree		Strongly Disagree		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	51	79.7	11	17.2	1	1.6	0	0	1	1.6	4.2953 (df=4)	N.S.
	Post	43	78.2	6	10.9	1	1.8	1	1.8	4	7.3		
Graduate	Pre	17	81.0	4	19.0	0	0	0	0	0	0	1.8843 (df=1)	N.S.*
	Post	11	61.1	5	27.8	1	5.6	0	0	1	5.6		
Staff	Pre	11	84.6	2	15.4	0	0	0	0	0	0	1.0645 (df=4)	N.S.
	Post	20	76.9	4	15.4	1	3.8	1	3.8	0	0		

*Based on collapsed table.

Table 18-- Attitude Item

53. The most effective way to combat the problem of drug abuse on college campuses would be:

1. Individual counseling for drug abusers
2. Present the facts to all students in relevant courses
3. Conduct conferences for students and faculty
4. Provide a drug information center for students and faculty

Rank		1.		2.		3.		4.		5. All of the above		χ^2	Significant Difference
		N	%	N	%	N	%	N	%	N	%		
Undergraduate	Pre	1	1.6	4	6.3	2	3.2	8	12.7	48	76.2	6.8418 (df=4)	N.S.
	Post	1	1.9	2	3.7	5	9.3	1	1.9	45	83.3		
Graduate	Pre	2	10.0	0	0	0	0	0	0	18	90.0	1.3371 (df=4)	N.S.
	Post	1	5.3	0	0	1	5.3	0	0	17	89.5		
Staff	Pre	0	0	1	7.7	1	7.7	2	15.4	9	69.2	5.0526 (df=4)	N.S.
	Post	0	0	0	0	1	5.3	0	0	18	94.7		

solving the problem which included individual counseling, course instruction, conference, and the establishment of a drug information center. The fact that well over 90% of the participants advocated drug education programs is overwhelming support for the continuation of Temple University's Drug Education Activities.

There was a serious typographical error in item 56 dealing with the increase of the drug abuse problem (See Appendix B) and therefore, the responses to this item were considered invalid, and the data was discarded. The error involved the omission of the categories for disagree and strongly disagree.

BEHAVIOR FOLLOW-UP

This section of the report, which focuses on the actual behavior of the participants following the conference, is in many ways the crucial test of the impact of the Retreat. It was relatively easy to measure changes in knowledge and attitudes, but a major gap remains between that and actual behavior. In view of this gap, an attempt was made to measure behavior that could be considered relevant to a drug education program.

Although there were no (see table 19) significant differences between the participants and the controls in terms of formal presentations made following the conference, the fact that 35% of the subjects surveyed were making formal presentations was considered significant. Furthermore, the majority of those people making presentations were people who had attended the Ambler conference. Chi-squares, based on a collapsed table, indicated directional support for the above generalization. The data in table 20, which are based on a somewhat similar question, also revealed no significant difference. Again, we find that out of the total sample that approximately 20% of these people invited others to speak. It would appear that one out of three subjects is making presentations and one out of five is inviting others to speak, which leads to the conclusion that a sizable percentage of the students and staff are concerned with drug education.

Another gratifying discovery can be seen in table 21 in that 90% of the participants read all or some of the literature that was provided. This is quite significant in that the participants were given a paperback book and 16 other pamphlets, totaling several hundred pages of reading material. The fact that people say they are reading the material provided to them during the conference would certainly justify further expenditures for literature in this area.

TABLE 19

1. Check the extent to which you have made formal presentations concerning drugs or drug abuse to your organization, department, or in your courses, etc.

Group	No presentations made		1 presentation		2 presentations		3 presentations		4 or more presentations		χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	56	65.1	14	16.3	10	11.6	2	2.3	4	4.7	5.8777 (df=4)	N.S.
Control	44	80.0	6	10.9	3	5.5	2	3.6	0	0		

TABLE 20

2. Check the extent to which you have invited others to make formal presentations concerning drugs or drug abuse to your organization, department, or in your courses, etc.

Group	No presentations made		1 presentation		2 presentations		3 presentations		4 or more presentations		χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	70	82.4	11	12.9	3	3.5	1	1.2	0	0	2.6868 (df=4)	N.S.
Control	47	85.5	6	10.9	1	1.8	0	0	1	1.8		

TABLE 21

3. Check the extent to which you have read the literature supplied to you at the RETREAT.

Group	skimmed some (but did not read)		skimmed all (but did not read)		read some		read all		did not look at any of it	
	N	%	N	%	N	%	N	%	N	%
Participant	0	0	8	9.5	42	50.0	34	40.5	0	0

The Chi-square based on the data in table 22 was statistically significant at the .05 level. Examination of the table revealed that the participants were reading more journals and books following the conference. It is important to note that this is probably material beyond what was provided at the conference in that only one book and no journals were supplied. It is also interesting to note that better than 20% of the control group were reading what can be considered more professional material.

The second major finding in terms of behavior following the conference was that the participants frequently found themselves involved in informal discussions related to the topic of drugs and drug abuse. This finding was significant at the .001 level. It can be concluded that the conference was stimulating enough to sustain the participants for several conversations in the spring.

The data in table 24 revealed that there were no significant differences in terms of pursuing research related to drug abuse. The general concern in the University setting was again reflected by the fact that 35 persons who were surveyed indicated some involvement and interest in research.

Based on the data in table 25, it can be concluded that the participants in their contacts with drug abusers following the conference focused on the risks involved in drug abuse. This difference was significant at the .02 level. Another statistical check was run on the pre-test data related to contact with drug abusers and here we found that the participants had greater contact prior to the conference than the control group at the .02 level of significance. (See table 26.)

The data in table 27 revealed that there were no significant differences between the participants and the controls in terms of how they perceived the effectiveness of various approached that were tried. It is interesting to note that approximately 50% of the participants and controls felt the most effective means for assisting drug abusers was through discussing their per-

TABLE 22

4. Check the extent to which you have read additional materials related to drugs or drug abuse.

Group	very little additional reading		occasional reading in the newspapers and/or popular magazines		obtained material from Drug Education Project		read material in journals and books		purchased reading material or checked material out of the library		χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	10	11.6	35	40.7	3	3.5	34	39.5	4	4.7	6.5888 (df=2)	.05*
Control	6	10.9	34	61.8	2	3.6	10	18.2	3	5.5		

* based on collapsed table

TABLE 23

5. Check the extent to which you have participated in informal discussions concerning drugs or drug abuse.

Group	not at all		approximately once a month		approximately once a week		approximately twice a month		daily		χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	5	6.0	18	21.4	35	41.7	11	13.1	15	17.9	19.8390 (df=4)	.001
Control	6	11.1	26	48.1	10	18.5	10	18.5	2	3.7		

TABLE 24

6. Check the extent to which you have developed research ideas or participated in research projects related to drugs or drug abuse.

Group	no opportunity to participate in research projects or develop research ideas		participated as a research subject		discussed research ideas with students or colleagues		assisted with the preparation of a written research proposal		submitted research proposal		x^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	64	76.2	2	2.4	15	17.9	1	1.2	2	2.4	2.7756 (df=4)	N.S.
Control	40	72.7	4	7.3	9	16.4	0	0	2	3.6		

TABLE 25

7. In your contacts with college students who have abused drugs which of the following things have you tried (more than one response may be checked).

Group	no contacts have been made		talked with them regarding their personal problems		attempted to get them to seek professional help		talked with them regarding the risks involved		called the problem to the attention of the administration		χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	18	21.4	19	22.6	15	17.9	32	38.1	0	0	11.2253 (df=3)	.02*
Control	24	43.6	15	27.3	4	7.3	12	21.8	0	0		

* based on collapsed table

Table 26

36. I have known _____ drug abusers:

Group	None		One or two		Two to six		Seven to ten		Ten or more		χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	19	19.79	16	16.67	29	30.21	14	14.58	18	18.75	11.9461 (df= 4)	.02
Control	21	37.50	15	26.79	12	21.43	4	7.14	4	7.14		

TABLE 27

8. Which of the methods that you may have tried (question7) seemed most effective.

Group	"B"		"C"		"D"		"E"				χ^2	Significant Difference
	N	%	N	%	N	%	N	%	N	%		
Participant	29	47.5	7	11.5	22	36.1	3	4.9	0	0	2.9209 (df=4)	N.S.
Control	15	55.6	1	3.7	11	40.7	0	0	0	0		

sonal problems. The second most effective means as perceived by the participants and the control group was discussing the risks involved.

The follow up questionnaire also attempted to discover what the participants planned to do in the area of drug education. The following are responses to the question:

> Please indicate any plans that you have for drug education programs or projects during the summer.

1. Use of the film "The Seekers" for summer lecture and film series.
2. Freshman Orientation Program.
3. I am one of the Counseling Center staff members who will be involved in Freshman Orientation.
4. Scouting presentation to older scouts and Explorers.
5. My contacts are on the individual basis with counselors - as far as this summer goes, I will be involved in Freshman Workshop; and in discussion groups, I may have an opportunity to present the drug abuse picture.
6. I'm hoping to attend Daytop Village at Swan Lake to work in group therapy with many people who have been drug abusers. If possible, I will also visit Encounter. On my return I am planning a visit to Eagleville Hospital to experience their program with ex-alcoholics.
7. May include drug abuse discussion as part of open discussion during Freshman Orientation.
8. I plan to spend about 1½ hours on drug abuse in my Psychology 1 class in pre-session and the same in post-session.
9. I plan to be a counselor at overnight and I would probably "turn on" with most of them.
10. At this moment, no formal drug education programs or projects are planned. I do expect informal discussions with small groups and individuals to occur. Also, with an eye toward the immediate future, I hope to help other clergymen in the Philadelphia area to set up some kind of drug education programs with church youth groups.
11. Trying to strengthen committees of Pennsylvania Medical Society regarding addictive disease.
12. Since I will be a group leader in Freshman Workshop, I'm sure the question of drugs will come up, if not formally planned idscussions, then in informal discussions with the groups.

13. I am unable at the present time to plan drug education programs or projects this summer. However, I will continue to read extensively on the drug abuse problem.

14. I plan to continue gathering information regarding drugs (mainly the hallucinogens) and to keep an open mind.

15. I feel strongly that the money being wasted on this ill-planned, and to a great extent unnecessary, project could be put to much better use either as a gift to one of the youth education projects in the N. Phila. ghetto which surrounds sanctuary called Temple University, or for the research being conducted into the possibility rehabilitation (not the persecution of today) of herion addicts.

16. I hope drug education will be an important part of summer Workshop.

17. As of yet I have not made any plans, but in the future I will subject myself to any plans your organization has. Thank you for letting me be a participant in this survey. I found it very educating and helpful.

18. Hope to plan research project for implementation in Fall.

19. For my elective in a particular department of the Medical School, I would like to do research on drugs and their effects next spring.

20. I'll try to read all the material received at the retreat and other current articles that I obtain.

21. Through informal discussions I'm getting the point across about how dangerous drugs are to my friends.

22. I will be working as a Freshman Orientation leader this summer. I believe an informal discussion is planned on this topic for each workshop.

The above responses can very definitely be divided into three categories, those made by undergraduate students, graduate students and staff, composed of faculty and administrators. Undergraduate student leaders plan to read about drugs, talk to their friends about drugs, and introduce freshman students to drug education at Temple. Graduate students, who are better able to concretize their ideas concerning drug education, plan to do research and work in group therapy. Faculty members plan to spend a portion of class time in the discussion of drug abuse, while administrators will work towards setting up committees for the furtherment of drug education.

The overall impression from the responses of the participants is that the conference served as a stimulant, not only for individual learning, but individual action. The effects of the conference, therefore, were not merely embodied in the participants of the conference, but also those who come in contact directly or indirectly with the participants.

PARTICIPANTS' RATINGS OF THE CONFERENCE

The evaluation would be incomplete if the feelings of participants regarding the conference were omitted. Accordingly, the participants were asked to express their opinions about the presentations and the general format and organization of the conference.

As can be seen in tables 28 and 29, the former drug users were perceived as being the most informative group and the phase that should be expanded in the future. Based on these results, the Encounter approach and staff can be highly recommended as conference speakers.

Table 28
Most Informative Discussion Group

	N	%
Led by a former drug abuser	46	43.80
Led by a pharmacologist	18	17.14
Led by a psychologist	16	15.23
Led by an agent of the law	15	14.28
Led by a psychiatrist	5	4.76

Table 29
Discussion Group to be Expanded in the Future

	N	%
Led by a former drug abuser	66	62.85
Led by a psychologist	12	11.42
Led by a psychiatrist	9	8.57
Led by a pharmacologist	8	7.61
Led by an agent of the law	3	2.85

The data in table 30 revealed that one out of four of the participants perceived the pharmacologist's presentation as not being relevant to their concerns. Further programs of this type should probably include a

pharmacologist, but his focus should perhaps be on physiology rather than chemistry.

Table 30
Discussion Group That Should be Eliminated

	N	%
Led by a pharmacologist	26	24.76
Led by a psychiatrist	20	19.04
Led by a psychologist	17	16.19
Led by an agent of the law	17	16.19
Led by a former drug abuser	1	.95

Table 31 reveals that 54% of the participants indicated that the ten - twenty minute introductory remarks of the speakers before the discussions should remain as they were. It would appear that the short presentations followed by the discussions of the nature demonstrated at the Retreat were accepted in a generally favorable manner.

Table 31
Presentations Before Discussions Should Be

	N	%
As they were	57	54.28
Somewhat shorter	13	12.38
Somewhat longer	12	11.42
Much shorter	4	3.80
Much longer	2	1.90

In table 32, 8% of the participants indicated that the initial presentations were too short; whereas, only 11% indicated that they were too long. As a consequence of this, it is felt that short presentations before the group discussions were satisfactory to most of the participants involved in the program.

It is also observed in table 32 that, as is typically the case with this type of program, some people went off on tangents, or dominated the dis-

cussion, or asked many irrelevant questions as was perceived by the other persons in attendance, but none of these problems was particularly outstanding.

Table 32
Most Common Problem During Discussions

	N	%
Some people went off on tangents	25	23.80
Some people dominated	22	20.95
Too many irrelevant questions	12	11.42
Initial presentations were long	12	11.42
Initial presentations were short	9	8.57

Table 33 shows that approximately 70% of the participants felt that the general level of discussion in the groups was just about right. This may reflect the fact that participants in the program were grouped with others whose level of sophistication concerning the topic was similar. Only 30% of the participants were in some way uncomfortable with the general level of discussion, the only apparent problem being some oversimplification. However, it would appear that with approximately 70% of them indicating favorably, the grouping procedures used at the conference were functional and successful.

Table 33
General Level of Discussion

	N	%
Just about right	73	69.52
Oversimplified	17	16.19
Technical	6	5.71
Very oversimplified	4	3.80

61% of those persons in attendance at the Retreat felt that the dangers of student drug use were appropriately emphasized by the speakers (see table 7). Whereas only 21% of the subjects indicated that the dangers were somewhat or greatly overemphasized, these responses tend to be extremely favorable in that

this topic is highly controversial and often leads to strong reactions from participants.

Table 34
Overall Impact with Respect to Emphasis on the Dangers of Student Drug Use

	N	%
Dangers appropriately emphasized	64	60.95
Dangers somewhat overemphasized	15	14.28
Dangers somewhat underemphasized	12	11.42
Dangers greatly overemphasized	7	6.66
Dangers greatly underemphasized	2	1.90

As observed in table 35, 80% of the program participants felt that the information provided for them that day would probably improve their effectiveness in dealing with the problem of drugs and drug abuse.

Table 35
Effectiveness of Information Provided

	N	%
Very probably improve effectiveness	41	39.04
Quite probably improve effectiveness	28	26.66
May improve effectiveness	15	14.28
Will not improve effectiveness	5	4.76
Will decrease effectiveness	2	1.90

In table 36, one finds that 78% of those in attendance felt that the organization of the conference was better than the typical conference they may have been a part of previously. This tends to indicate for us that this complex format that was initiated on that day was very appropriate.

Table 36
Organization of Conference

	N	%
Extremely helpful	45	42.85
Better than the typical	38	36.19

	N	%
Typical of most	15	14.28
Worse than the typical	1	.95

83% of the participants found the Ambler Campus a more than adequate setting for a conference of this type. It may be assumed that the warm, relaxed atmosphere of a suburban campus for this type of conference tends to make the participants feel more comfortable when discussing such a controversial issue.

Table 37
Ambler Campus, an Appropriate Setting

	N	%
Very appropriate	70	66.66
Better than most settings	18	17.14
Typical of most settings	13	12.38
Should have been held elsewhere	3	2.85

On table 38, no real significant indication was found as to how the participants felt about Helen Nowlis' book, DRUGS ON THE COLLEGE CAMPUS. An almost equal number of persons responded to each possible answer in the question.

Table 38
Extent to which DRUGS ON THE COLLEGE CAMPUS Assisted in Preparation

	N	%
Somewhat helpful	24	22.85
Did not review	23	21.90
O.K.	21	20.00
Very helpful	20	19.04
Somewhat inadequate as a reference	12	11.42

80% of the participants found the use of the discussion groups an appropriate approach for the conference dealing with drugs and drug abuse.

(See table 42.) This would tend to indicate that those persons were satisfied with small group discussions where they had the opportunity to have their questions answered by the experts.

Table 39
Approach of Discussion Groups

	N	%
Very appropriate	74	70.47
Typical approach	8	7.61
Acceptable approach	6	5.71
Not as good as other approaches	2	1.90
Very inappropriate	1	.95

SUMMARY AND CONCLUSIONS

Temple University's concern for the drug abuse problem culminated in the Retreat, on the Hazards of Drug Abuse. Early in the planning stages of the Retreat, a decision was made to evaluate the program in depth, and federal support from the Justice Department made this possible. The evaluation design involved pre- and post-testing for information gains and attitude changes. Also included in the design was a follow-up six weeks after the conference that focused on the participants' activities that related to drug education. A control group was also established in order to determine the impact of the conference on the participants. The primary instrument that was utilized was the DRUG ABUSE Scale. Before use, a thorough item analysis was conducted and a reliability of .83 was established.

In the area of knowledge gained, an analysis of variance which compared the participants to the controls on the pre- and post-testing revealed that the gain of twelve points for the participants was statistically significant at the .01 level. The participants' gain of twelve points was more than double their test scores and the control group only gained one-quarter of a point. When the knowledge scales for the undergraduates, graduates, and staff were subjected to an analysis of variance, no significant differences in pre- and post-gains were found.

The attitude data collected as part of the conference evaluation revealed that the participants and controls generally had conservative attitudes with regard to using drugs. Most of the statistically significant shifts were for the undergraduate students and these included:

1) a shift from agreeing with the legalization of marijuana to disagreeing with legalization;
2) a shift from having no opinion about marijuana to disagreeing with its usefulness in achieving "greater insight"; and,
3) a shift from perceiving the drug abuser as not being alienated to

seeing him as somewhat alienated.

Another important attitude that was discovered was that the University should not be involved in penalties for drug abusers beyond the penalties of the law. Although the participants did not see a punitive role, they strongly recommended that the University be involved in several approaches to drug education including: individual counseling; lectures in relevant courses; additional conferences; and resource centers.

Within the first forty-eight hours after the conference, the following occurred:

1) 28 additional booklets, Drugs on the College Campus were distributed;

2) 19 pamphlets on LSD were given out;

3) 35 copies of the World Health Organization bulletin on dependence were requested; and,

4) 25 copies of Psychedelics and the College Student by the Princeton Press were distributed.

In addition to the above were 11 requests for the film "The Mindbenders" and over twenty requests for the Encounter film, "The Seekers". There were so many requests to meet with the Encounter people that plans were made to bring them down to the campus for a series of six seminars. Much of this literature that was requested by individuals other than those who were in attendance. The conference literature was also seen all over the campus and many discussions were held in classes. Finally, several fraternity and sorority meetings were devoted to the topic within forty-eight hours and several of these groups invited us to come to their organizations. In general, the immediate response was indicative of the significant impact of this conference.

The behavior follow-up of the participants and controls six weeks after the conference revealed that the participants were involved in more informal activities such as general reading and small group discussions than the controls. There were no significant differences in terms of formal presentations in classrooms or before groups. The behavior follow-up also revealed that the great

majority of the participants had read most of the material provided at the conference. Another significant finding at this time was that the participants in their contacts with drug abusers emphasized the hazards involved with drugs and also discussed personal problems with the abusers.

Also included in the evaluation were the participants' ratings of the conference. In general, they highly recommended the inclusion of former drug abusers; and, in fact, wanted more time with this type of speaker. Participants also responded favorably to the opportunity given to them during the small group discussion sessions. In that the participants were grouped according to pre-test scores, it was not surprising to find that they also felt the level of the conference was just about right. Finally, the participants were highly complimentary with regard to the organization and setting for the Retreat.

Based on the results of the evaluation, the following conclusions were developed:

1) The conference was particularly effective in increasing the participants' level of information regarding drugs;
2) the conference had a favorable impact on the attitudes of undergraduate students, particularly with regard to marijuana;
3) the conference stimulated the participants to further acquire and disseminate information related to drug education; and,
4) the format of the conference was very appropriate and further endeavors of this nature will rely heavily on this approach.

The success of this year's program has led to the establishment of the Drug Education Activities Project (See Appendix F) with full-time staff providing drug education, referral, and research services.

Appendix A

OUTLINE FOR THE
RETREAT ON THE HAZARDS OF DRUG ABUSE*
for students, faculty, and administrative staff

I. A retreat for 150 persons was held on Sunday April 21, 1968 at the Ambler Campus of Temple University.

a. These 150 persons divided into groups of 15 persons each, which constituted 10 separate groups, of a heterogeneous nature.

b. Each group rotated through five different workshops during the day.

c. Participants were invited from the following areas:
1. officers of recognized student organizations.
2. dormitory residence staff.
3. freshman workshop orientaion leaders.
4. instructors in psychology and sociology.
5. and others in related areas.

II. Workshops

a. Speakers
1. psychiatrists (2)
2. psychologists (2)
3. pharmagology experts (2)
4. law enforcement agents (2)
5. films on drug abuse (2)

b. Each workshop was one hour long.

c. Speakers were requested to confine their introductory remarks to ten or fifteen minutes, thus leaving approximately forty minutes for discussion and ten minutes for change of rooms.

d. Each participant met with four speakers during the day.

III. Literature

a. Each participant received a packet of literature on drug abuse, contents of which were selected by the Sub-Committee on Educational Programs, of the Special Committee on Drug and related Problems.

b. A complete schedule describing the participants' movements for the day was included with the literature.

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* DRUG ABUSE- excessive and/or compulsive use of a drug to an extent that damages an individual's health or social or vocational adjustment; or is otherwise specifically harmful to society.

c. Sample literature was supplied with the registration validation, in order to stimulate preliminary thinking and questions.

IV. Miscellaneous

a. The entire project was financed by the Office of Student Personnel.

b. Lunch was supplied gratis.

c. Coffee and tea were served during registration and a mid-afternoon recess.

d. Press releases were supplied; however, the press was not permitted to participate in the discussion groups.

e. Sample schedule.

10:00-10:30	registration and introductory remarks
10:30-11:30	workshop
11:30-12:30	workshop
12:30- 1:30	lunch
1: 30- 2:30	workshop
2: 30- 3:30	workshop
3: 30- 4:00	recess
4: 00- 5:00	workshop

This program was designed with a two-fold purpose; to acquaint those persons who have close contact with students, with information concerning the hazards of drug abuse; to offer University assistance in bringing programs to individual groups of students and/or classrooms for their information and education concerning this timely and complex problem.

Bruce Roxby, M.D., Chairman — Richard E. Horman, Secretary
Sub-Committee on Educational Programs
Special Committee on Drug and Related Problems

Appendix B

D R U G

Attitudes and Backgrounds of University Students and Educators*

by John D. Swisher, Ph.D and Richard E. Horman
Temple University

INSTRUCTIONS: on the answer sheet indicate the response that most accurately answers the question, or is representative of your attitude or opinion. It is not expected that you will answer all of the questions; however, attempt to answer everything. Include your name, age, sex, and student number (in first six boxes under Social Security number, if applicable) on the answer sheet----------PLEASE USE PENCIL!!

1. If you are an undergraduate student, fill in the proper space:
   1) Freshman
   2) Sophomore
   3) Junior
   4) Senior
2. If you are a graduate student, fill in the proper space:
   1) Working for a master's degree
   2) Working for a doctoral degree
   3) Non degree candidate
   4) Working on certification
3. If you have teaching responsibilities, fill in the proper blank:
   1) Teaching Assistant
   2) Instructor
   3) Assistant Professor
   4) Associate Professor
   5) Full Professor
4. If you have leadership or administrative responsibilities, fill in the proper space:
   1) Student organization officer
   2) Dormitory resident staff
   3) Student orientation leader
   4) Part time administrator
   5) Full time administrator
5. Each participant should indicate his undergraduate average:
   1) Under 2.0
   2) 2.0-2.4
   3) 2.4-2.9
   4) 3.0-3.4
   5) 3.5 and over
6. If you have or are working on a master's degree, indicate your grade average:
   1) Under 2.5
   2) 2.5-2.9
   3) 3.0-3.4
   4) 3.5 and over
7. If you have or are working on a doctoral degree, indicate your grade average:
   1) Under 2.5
   2) 2.5-2.9
   3) 3.0-3.4
   4) 3.5 and over

* DRUG ABUSE - excessive and/or compulsive "use of a drug to an extent that it damages an individual's health or social or vocational adjustment; or is otherwise specifically harmful to society" (Joel Fort, M.D. 1967)

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Swisher and Horman 1968

8. Psychedelic drugs have been defined as those drugs which:
   1) alter perceptions
   2) are usually taken by hippies
   3) stimulate central nervous system
   4) effect the psyche
9. The fastest way to feel the effects of marijuana is by:
   1) smoking it in a cigarette
   2) inhalation of fumes
   3) eating it in a capsule
   4) injecting it in a blood vessel
10. Drug abuse is a legal, not a psychological problem:
   1) strongly agree
   2) agree
   3) have no opinion
   4) disagree
   5) strongly disagree
11. LSD is a(n):
   1) depressant
   2) amphetamine
   3) narcotic
   4) hallucinogen
12. Which of the following may result from the use of LSD:
   1) distortion of perception
   2) hallucination
   3) dream images
   4) greater insight
   5) all but 4
13. Which is the most appropriate for apprehended college drug abusers:
   1) 1st offense a court warning, 2nd offense a court imposed fine, 3rd offense a court imposed sentence
   2) automatic dismissal from the University
   3) the University should not impose any penalty beyond the law's
   4) 1 and 2
   5) 1 and 3
14. Current events tend to indicate that LSD: 1) depresses body functions
   2) destroys vision
   3) effects chromosomes
   4) stimulates sex organs
15. Since LSD is no more dangerous than alcohol, it should be legalized:
   1) strongly agree
   2) agree
   3) have no opinion
   4) disagree
   5) strongly disagree
16. Which may be called psychoactive:
   1) LSD
   2) DMT
   3) marijuana
   4) all of the above
17. The effects of a drug on a person are a result of:
   1) previous experience with drugs
   2) the amount of drug taken
   3) the person's unique personality
   4) all the above
18. Marijuana is no more dangerous than alcohol, therefore it should be legalized: 1)strongly agree
   2) agree
   3) have no opinion
   4) disagree
   5) strongly disagree
19. Benzedrine and Dexedrine are:
   1) depressants
   2) amphetamines
   3) narcotics
   4) bartiturates
20. The prolonged abuse of barbiturates may lead to:
   1) tolerance
   2) psychic dependence
   3) physiological dependency
   4) all of the above
21. More research needs to be done regarding the effects of which of the following, drugs before they are made generally available to the public:
   1) marijuana
   2) LSD
   3) stimulants and depressants
   4) 1 and 2
   5) 1,2 and 3
22. The chief danger in using marijuana is:
   1) physical dependence
   2) the development of a tolerance
   3) physiological changes
   4) psychic dependence
23. Marijuana can help a person achieve better self understanding:
   1) strongly agree
   2) agree
   3) have no opinion
   4) disagree
   5) strongly disagree
24. Which is true of barbiturates:
   1) central nervous system stimulants
   2) central nervous system depressants
   3) are not physically addicting
   4) a prescription is not required
25. LSD can help a person achieve a better self understanding:
   1) strongly agree
   2) agree
   3) no opinion
   4) disagree
   5) strongly disagree

26. LSD is sometimes referred to as:
    1) pot
    2) acid
    3) speed
    4) zap
27. Narcotics are:
    1) CNS depressants
    2) CNS stimulants
    3) not used for coughs
    4) always derivatives of opium
28. Which of the following is not a stimulant:
    1) benzedrine
    2) methedrine
    3) reserpine
    4) amphetamine
29. Pep pills can help a person stay alert in order to get a job done:
    1) strongly agree
    2) agree
    3) no opinion
    4) disagree
    5) strongly disagree
30. Which is true of amphetamines:
    1) CNS stimulants
    2) CNS depressants
    3) should be taken with alcohol
    4) a prescription is not required
31. Amphetamines are sometimes called:
    1) red-devils
    2) goof-balls
    3) yellow-jackets
    4) pep-pills
32. Depressants can help a person through some anxiety producing experiences:
    1) strongly agree
    2) agree
    3) no opinion
    4) disagree
    5) strongly disagree
33. A drug user who increases the dosage to obtain the same effect is developing a(n):
    1) physical dependency
    2) tolerance
    3) addiction
    4) psychological dependency
34. Barbiturates are <u>not</u> used medically for the treatment of:
    1) insomnia
    2) low blood pressure
    3) epilepsy
    4) hyperactivity
35. Which is not a tranquilizer:
    1) thorazine
    2) compazine
    3) methadrine
    4) stelazine
36. I have known _____ drug abusers:
    1) none
    2) one or two
    3) two to six
    4) seven to ten
    5) ten or more
37. DMT is a(n):
    1) depressant
    2) amphetamine
    3) narcotic
    4) hallucinogen
38. Barbiturates are sometimes called:
    1) pep-pills
    2) goof-balls
    3) truck drivers
    4) hard stuff
39. Drug abusers are generally alienated from society:
    1) strongly agree
    2) agree
    3) have no opinion
    4) disagree
    5) strongly disagree
40. Marijuana grows in the climate of:
    1) Canada
    2) South America
    3) Philadelphia
    4) all of the above
    5) . and 2 only
41 Hashish is a(n):
    1) narcotic
    2) amphetamine
    3) concentrated from one of marijuana's active element
    4) physically addicting drug
42. Drug abusers are generally passive type people:
    1) strongly agree
    2) agree
    3) have no opinion
    4) disagree
    5) strongly disagree
43. The person who uses drugs has an emotional problem:
    1) strongly agree
    2) agree
    3) have no opinion
    4) disagree
    5) strongly disagree
44. Which of the following drugs has been known by man for the longest time:
    1) heroin
    2) marijuana
    3) morphine
    4) cocaine

45. Drug abusers have more academic difficulties than other college students:
    1) strongly agree
    2) agree
    3) have no opinion
    4) disagree
    5) strongly disagree

46. Frequent marijuana usage produces:
    1) habitual dependence
    2) tolerance
    3) psychic dependence
    4) habituation
    5) both 3 and 4

47. Drug abusers generally do make friends with others easily:
    1) strongly agree
    2) agree
    3) have no opinion
    4) disagree
    5) strongly disagree

48. Peyote is a(n):
    1) small cactus
    2) mushroom
    3) root
    4) herb

49. Which of the following has least potential for psychological dependence:
    1) cannabis
    2) denzedrine
    3) doriden
    4) alcohol

50. College students should be made aware of the dangers of drug abuse:
    1) strongly agree
    2) agree
    3) have no opinion
    4) disagree
    5) strongly disagree

51. LSD was originally synthesized at _____ laboratories:
    1) Wyeth
    2) Smith Kline and French
    3) Sandoz
    4) Roche

52. Which of the following does <u>not</u> generally cause physical dependence:
    1) morphine
    2) amphetamine
    3) seconal
    4) demerol

53. The <u>most</u> effective way to combat the problem of drug abuse on college campuses would be:
    1) Individual counseling for drug abusers
    2) Present the facts to all students in relevant courses
    3) Conduct conferences for students and faculty
    4) Provide a drug information center for students and faculty
    5) All of the above

54. Which of the following is <u>not</u> a name for marijuana:
    1) cannabis
    2) grass
    3) pot
    4) weed
    5) all of the above

55. The drug abuse control amendments effect the sale and distribution of:
    1) marijuana
    2) opium
    3) demerol
    4) chloral hydrate

56. Drug abuse is becoming a greater problem for college students in general:
    1) strongly agree
    2) agree
    3) have no opinion

Appendix C

CONFERENCE EVALUATION FORM

58. Which of the following discussion groups was the most informative?
    1) group led by a psychologist
    2) group led by a psychiatrist
    3) group led by a pharmacologist
    4) group led by an agent of the law
    5) group led by a former drug abuser
59. Which of the following discussion groups would you want to expand in the future?
    1) group led by a psychologist
    2) group led by a psychiatrist
    3) group led by a pharmacologist
    4) group led by an agent of the law
    5) group led by a former drug abuser
60. Which of the following discussion groups would you have eliminated from the conference?
    1) group led by a psychologist
    2) group led by a psychiatrist
    3) group led by a pharmacologist
    4) group led by an agent of the law
    5) group led a former drug abuser
61. The presentations before the discussions should have been:
    1) much longer
    2) somewhat longer
    3) as they were
    4) somewhat shorter
    5) much shorter
62. Which of the following was the most common problem during the discussions?
    1) some people dominated
    2) too many irrelevant questions
    3) initial presentations were long
    4) initial presentations were short
    5) some people went off on tangents
63. Did the general level of discussion in the conference tend to be:
    1) very technical
    2) technical
    3) just about right
    4) oversimplified
    5) very oversimplified
64. What was the overall impact of the conference with respect to <u>emphasis on the dangers</u> of student drug use?
    1) Dangers greatly overemphasized
    2) Dangers somewhat overemphasized
    3) Dangers appropriately emphasized
    4) Dangers somewhat underemphasized
    5) Dangers greatly underemphasized
65. Do you feel the conference provided information which you believe will improve your effectiveness in defining, recognizing, and/or coping with the problem?
    1) The information will very probably improve my effectiveness
    2) The information will quite probably improve my effectiveness
    3) The information may improve my effectiveness
    4) The information will not improve my effectiveness
    5) The information will decrease my effectiveness
66. Do you feel that the way the conference was organized was:
    1) Extremely helpful
    2) Better than the typical conference
    3) Typical of most conferences
    4) Worse than the typical conference
    5) Extremely poor
67. To what extent do you feel the Ambler Campus was an appropriate setting for the conference?
    1) Very appropriate
    2) Better than most settings
    3) Typical of most settings
    4) Acceptable but lacking some facilities
    5) Should have been held elsewhere
68. To what extent did the book <u>Drugs on the College Campus</u> by Helen Nowlis assist you with preparing for the conference?
    1) Very Helpful
    2) Somewhat helpful
    3) O.K.
    4) somewhat inadequate as a reference
    5) did not have time to review
69. To what extent do you feel that discussion groups were an appropriate approach to this conference?
    1) Very appropriate
    2) Typical approach
    3) Acceptable as an approach
    4) Not as good as other approaches
    5) Very inappropriate

Please write any additional comments on the back of the answer sheet.

Appendix D

Budget Bureau #43-S68004
Approval Expires June 1968

Drug Education Activities

We are primarily interested to discover the formal and informal efforts you have made to acquire and disseminate information concerning drugs or drug abuse. This form should take you less than five minutes to complete and will be very helpful in our future planning. Please answer all questions.*

NAME _____ _____ _____
LAST FIRST STUDENT NUMBER

1. Check the extent to which you have made formal presentations concerning drugs or drug abuse to your organization, department, or in your courses , etc.

_____A. no presentations made
_____B. 1 presentation
_____C. 2 presentations
_____D. 3 presentations
_____E. 4 or more presentations

2. Check the extent to which you have invited others to make formal presentations concerning drugs or drug abuse to your organization, department, or in your courses, etc.

_____A. no presentations made
_____B. 1 presentation
_____C. 2 presentations
_____D. 3 presentations
_____E. 4 or more presentations made

3. Check the extent to which you have read the literature supplied to you at the RETREAT.

_____A. skimmed some (but did not read)
_____B. skimmed all (but did not read)
_____C. read some
_____D. read all
_____E. did not look at any of it

4. Check the extent to which you have read additional materials related to drugs or drug abuse.

_____A. very little additional reading
_____B. occasional reading in the newspapers and/or popular magazines
_____C. obtained material from Drug Education Project
_____D. read material in journals and books
_____E. purchased reading material or checked material out of the library

*Persons who did not attend April 2, RETREAT should skip question #3, but answer all the other questions.

5. Check the extent to which you have participated in informal discussions concerning drugs or drug abuse.

_____A. not at all
_____B. approximately once a month
_____C. approximately once a week
_____D. approximately twice a month
_____E. daily

6. Check the extent to which you have developed research ideas or participated in research projects related to drugs or drug abuse.

_____A. no opportunity to participate in research projects or develop research ideas
_____B. participated as a research subject
_____C. discussed research ideas with students or colleagues
_____D. assisted with the preparation of a written research proposal
_____E. submitted research proposal

7. In your contacts with college students who have abused drugs which of the following things have you tried (more than one response may be checked).

_____A. no contacts have been made
_____B. talked with them regarding their personal problems
_____C. attempted to get them to seek professional help
_____D. talked with them regarding the risks involved
_____E. called the problem to the attention of the administration

8. Which of the methods that you may have tried (question 7) seemed most effective.

_____A. "B"
_____B. "C"
_____C. "D"
_____D. "E"

9. Please indicate any plans that you may have for drug education programs or projects during the summer.

REH-JDS

Appendix E

INFORMATION AND ATTITUDE SCALE
on
STIMULANTS, DEPRESSANTS and HALLUCINOGENS
by
John D. Swisher, Ph.D. and Richard E. Horman
TEMPLE UNIVERSITY

PLEASE INDICATE ON THE ANSWER SHEET THE RESPONSE THAT MOST ACCURATELY ANSWERS THE QUESTION, OR IS REPRESENTATIVE OF YOUR ATTITUDE OR OPINION. Thank you!

1. Which of the following statements is true of barbiturates: a) they are central nervous system stimulants b) they are central nervous system depressants c) they should be taken with alcohol d) you do not need a prescription to obtain them.

2. When a drug user finds that he has to keep increasing the dosage to obtain the same effect, we say that he is developing a(n): a) dependency b)tolerance c) addiction d) allergy.

3. The chief danger in the use of marijuana is: a) physical dependence b) the development of a tolerance c) physiological changes d) psychic dependence.

4. Under the influence of LSD a person may feel that he can fly: a) true b) false.

5. Barbiturates are <u>not</u> medically used for the treatment of: a) insomnia b) low blood pressure c) epilepsy d) hyperactivity.

6. Drug abusers are more aggressive than others: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

7. Periods of psychosis have developed in persons who use LSD: a) true b) false.

8. The hallucinogens produce greater insight into one's mind: a) true b) false.

9. LSD was originally synthesized at _____ laboratories: a) Wyeth b) Smith Kline and French c) Sandoz d)Roche.

10. The fastest way to feel the effects of marijuana is by: a) smoking b) sniffing c) eating.

11. A pharmacologist may define a drug as "any substance that by its chemical nature alters structure or function in the living organism": a) true b) false.

12. Which of the following is <u>not</u> an hallucinogen: a) mescaline b) DMT c) LSD d) psilocybin e) all are hallucinogens.

13. Drug abusers are generally alienated from society: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

14. The University should establish a drug abuse control service to provide students, faculty and administration with current information concerning the topic: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

15. Amphetamines may alter the physiology of brain tissue: a) true b) false.

16. Drug abuse is becoming a great problem for the college youth of today: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

17. Marijuana is no more dangerous than alcohol, therefore it should be legalized: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

18. Drug abusers are out for kicks: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

19. The abuse of drugs on the college campus is a passing fad: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

20. DMT is a(n): a) depressant b) amphetamine c)narcotic d) hallucinogen.

21. Drug abusers have more academic difficulties than others: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

22. Marijuana should be legalized: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

23. Tolerance develops when a person: a) cannot stop using the drug b) needs more drug to produce same sensation c) feels "light-headed" d) becomes physically dependent.

24. The college drug user is really a "criminal type": a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

25. The person who uses drugs has an emotional problem: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

26. Drug abusers are generally leftists: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

27. Drug abuse is a legal, not a psychological problem: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

28. Benzedrine and Dexedrine are: a) depressants b) amphetamines c) narcotics d) hallucinogens.

29. Which of the following is not a stimulant: a) benzedrine b) methedrine c) stelazine d) dexedrine.

30. Drug abuse is usually a phenomenon of which social-economic group: a) low class b) middle class c) upper-middle class d) upper class e) any and all of the above.

31. Which of the following drugs is most safe to use, while driving: a) marijuana b) nicotine c) amphetamine d) LSD-25.

32. LSD is a great aphrodisiac: a) true b) false.

33. Habituation and dependence mean the same thing: a) true b) false.

34. Marijuana, although a depressant, actually tends to loosen inhibitations: a)true b) false.

35. The Drug Abuse Control Amendments effect sale and distribution of: a) marijuana b) opium c) demerol d) chloral hydrate.

36. Peyote is a(n): a) small cactus b) mushroom c) root d) herb.

37. A university should offer the student with a drug problem psychotherapeutic help: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

38. Conferences, workshops, or retreats will not effectively slow down the abuse of drugs: a) strongly agree b) agree c) have no opinion d) disagree e)strongly disagree.

39. A discussion of the legal involvements is essential to drug abuse education: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

40. L.S.D. was first synthesized by Hoffman and Stall: a) true b) false.

41. Which of the following is <u>not</u> a narcotic: a) heroin b) marijuana c) demerol d) codeine.

42. With respect to college drug use, the term addiction has generally been replaced with: a) tolerance b) habituation c) dependence d) term addiction is still proper e) both b & c.

43. Which of the following are central nervous depressants: a) alcohol b) doriden c) chloral hydrate d) 1 and 3 e) all of the above.

44. Marijuana may be used as a substitute for: a) aspirin b) benzedrine c) methadrine d) it is non-medicinal.

45. The Bureau of Drug Abuse Control of the Food and Drug Administration handles law enforcement with which drug: a) opium b) LSD c) marijuana d) heroin.

46. Which of the following is not a tranquilizer: a) thorazine b) compazine c) methadrine d) stelazine.

47. Which of the following may result from the use of LSD: a) distortion of perception b) hallucination c) dream images d) greater insight e) all but d.

48. I have known _____ drug abusers: a) none b) one or two c) two to six d) seven to ten e) ten or more.

49. Which of the following is <u>not</u> a name for marijuana: a) cannabis b) grass c) pot d) weed e) none of the above.

50. Hashish is a(n): a) narcotic b) amphetamine c) concentrated form of marijuana's active element d) physically addicting drug.

51. College students should be made aware of the dangers of drug abuse: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

52. Psychedelic drugs have been defined as those drugs which: a) alter perceptions b) depress the subject c) stimulate the central nervous system d) decrease hyperactivity.

53. A "head" is a regular user of marijuana or LSD: a) true b) false.

54. Some amphetamines may be called: a) acid b) goof-balls c) grass d) pep-pills.

55. Barbiturates may also be called: a) pep-pills b) goof-balls c) grass d) acid.

56. Current research tends to indicate that LSD: a) depressed body functions b) destroys vision c) effects chromosomes d) stimulates sex organs.

57. LSD is also called: a) pot b) acid c)speed d) zap.

58. Frequent marijuana usage produces: a) physical dependence b) tolerance c) psychic dependence d) habituation e) both c and d.

59. More research needs to be done before one should use marijuana: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

60. Which of the following drugs has been known by man for the longest period of time: a) heroin b) marijuana c) LSD-25 d) barbituric acid.

61. Marijuana grows in the climate of: a) Mexico b) South America c) Philadelphia d) all of the above e) a and b only.

62. LSD helps one solve problems: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

63. The abuse of pep-pills and sleeping pills is very dangerous: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

64. The use and/or sale of marijuana is regulated under The Harrison Narcotic Acts: a) true b) false.

65. The effects of a psychadelic on a person are as much a function of the person's unique personality as a function of the drug itself: a) true b) false.

66. Traditionally, drugs that have no therapeutic value have been made illegal: a) true b) false.

67. The chance of death from withdrawal of barbiturates is 3 times greater than withdrawal from heroin: a) true b) false.

68. Which of the following has least potential for psychological dependence: a) cannabis b) denzedrine c) doriden d) alcohol.

69. Which of the following does <u>not</u> generally cause physical dependence: a) morphine b) amphetamine c) seconal d) demerol.

70. Drug abusers generally do not make friends with others easily: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

71. Continued and/or increased abuse of drugs may have serious effects on succeeding generations: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree

72. Narcotics are: a) CNS depressants b) CNS stimulants c) hallucinogens d) non-addicting.

73. Which of the following may be called psychoactive: a) LSD b) DMT c) marijuana d) all of the above.

74. Marijuana facilitates an individual's insight: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

75. Drug abusers are passive type persons: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

76. Drug abusers are unusually anxious about many things: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

77. The prolonged abuse of barbiturates may lead to: a) tolerance b) psychic dependence c) physiological dependency d) all of the above.

78. Physicians should be able to use LSD for medicinal purposes: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

79. Although smoking tends to have a "calming" effect on a person it is really a stimulant like caffeine: a) true b) false.

80. Marijuana is socially unacceptable: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

81. The experienced effects of LSD are dependent on the psychology as well as the physiology of a person: a) true b) false.

82. Marijuana is becoming a "crutch" for many college students: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

83. LSD is a(n): a) depressant b) amphetamine c) narcotic d) hallucinogen.

84. Which of the following statements is true of amphetamine: a) they are CNS stimulants b) they are CNS depressants c) they should be taken with alcohol d) you do not need a prescription to obtain it.

85. The danger of death from withdrawal is greatest for which drugs: a) morphine b) amphetamine c) barbiturates d) LSD-25.

86. Classes in psychology and sociology should discuss drug abuse, particularly as it relates to the college population: a) strongly agree b) agree c) have no opinion d) disagree e) strongly disagree.

Appendix F

DRUG EDUCATION ACTIVITIES PROJECT

Introduction

On April 21, 1968, the Special Committee on Drug and Related Problems of Temple University presented "A Retreat, on the Hazards of Drug Abuse." The program had 125 student leaders, members of the faculty, as well as administrators in attendance.

The program was designed to: create a sense of awareness about the problem among the participants; brief persons who have close contact with students about the hazards of drug abuse; and to stimulate interest in creating programs concerning the topic.

As a consequence of the success of the Retreat program, the Committee was deluged by requests for speakers, films, literature, etc. Through a joint action of the Committee, the Office of Student Personnel, and the Student Health Service, the Drug Education Activities Project was established.

A full-time director was appointed to handle the project with provisions for the addition of more staff when necessary. Offices are maintained in Mitten Hall 205. The project is a free and voluntary service provided by the University for members of its community.

SERVICES

Education

The D.E.A. office maintains complete lists of persons who are interested in speaking to groups about the problem of drug abuse. In addition, a large supply of current, up-to-date, hand-out literature is provided for concerned individuals. Films may be obtained from D.E.A. or through other recommended agencies.

D.E.A. will run campus programs during 1968-69 as well as model "Drug Studies Workshops." It is the intention of D.E.A. to serve as a resource center for students, faculty, and administrators who are interested in developing drug

education projects for their own groups.

Referrals

Information concerning professional help for students with a drug problem is provided through the D.E.A. project. Persons with a problem are advised of the services offered on the campus, through the Health Service Center, as well as public agencies.

Research

During the summer of 1968, the project obtained a research contract from the Bureau of Narcotics and Dangerous Drugs to evaluate the effectiveness of drug education at Temple. The report concerning this is available from the D.E.A. office.

Currently, under the direction of Dr. John D. Swisher of the Department of Psychology, new proposals for continued research are being prepared. It is the hope of the D.E.A. project to develop techniques of prevention in accordance with the results of its own, as well as other, research.